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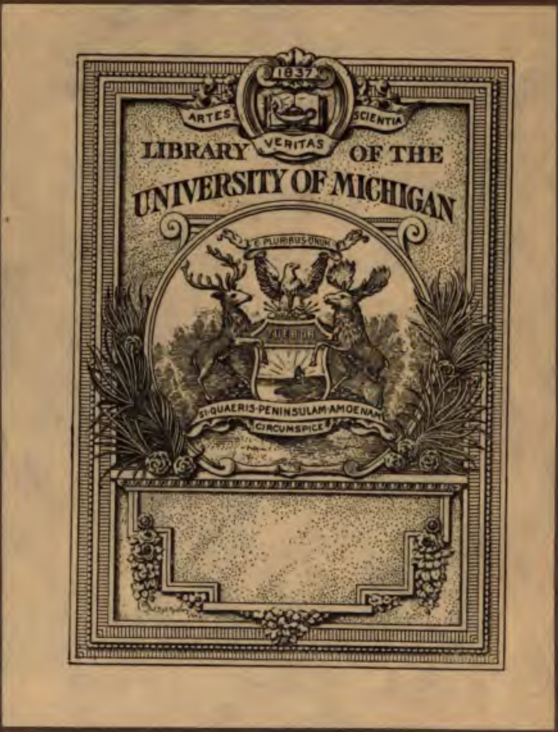
PUBLISHING BOARD

LIBRARY TRACT, No. 4

LIBRARY ROOMS AND BUILDINGS

By CHARLES C. SOULE
TRUSTEE OF A. L. A. ENDOWMENT FUND

PUBLISHED FOR THE
American Library Association
BY
HOUGHTON, MIFFLIN & COMPANY, BOSTON
1902



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LIBRARY ROOMS AND BUILDINGS.

ONE ROOM.

In starting a small library, a separate building is not necessary. A single room will often answer all purposes at first, especially for a neighborhood library whose users all know each other, and where books are mainly taken out for home use, and are not read on the premises.

If there is any choice as to location, a cheerful and attractive room should be selected, near the business centre of the district to be served.

Very little furniture is required for a start. Any kind of desk for records, one or two plain tables for magazines and newspapers, a few common chairs, lamps for evening use, and such simple shelving as any carpenter can construct, are all that will be needed. To plan the shelving, reckon the number of volumes the library will have at first and will be likely to add during the first year or two, and allow 8 volumes to the foot (see p. 16). Thus, if the library has 500 volumes, and hopes to get 300 more within a year, $800 \div 8 = 100$ linear feet of shelving will be sufficient for its present needs.

It is best to put shelves against walls opposite or at right angles to windows, and not between them, so that there will be either direct or side light on the backs of the books. A room 15 × 20 feet, with windows on one side, will give three sides, less space occupied by doors and fireplace, for shelving. If the windows are on the long side, and there are two doors 4 feet wide, and a fireplace 6 feet wide, there

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will be two sides of 15 feet and one of 20 feet (=50 feet) less (2 × 4+6 = 14 feet), or 36 feet, less two corners counted twice, — say 34 feet clear wall-space available.

A book-case seven shelves high, against the wall at one end of the room (7 × 15 = 105 feet) would give the requisite shelf-room. Another method which might be used, would be to run three shelves breast-high around the room (3 × 34 = 102 feet), thus bringing all the books about opposite the eyes of readers examining them.

In putting up shelving against the end of the room, use inch boards 8 inches wide, leave a base of 4 inches to raise the lower shelf above the sweepings of the floor, then a space of (say) 13 inches for large volumes, with six shelves above at further intervals of 10 inches (or 11 inches from top to top of shelves), and a top-board with or without moulding.[1] Or, the lower shelf and the three shelves next above, at top-to-top intervals of (say) 13, 12, and 11 inches can be made 16 inches deep, with shelves above 8 inches deep at 11 inch intervals, thus leaving a useful ledge 8 inches wide 40 inches from the floor.

If the breast-high shelving is preferred, put the top shelf about 5 feet from the floor, with two others below with top-to-top intervals of 11 inches, — all 8 inches wide. Provide wider shelving elsewhere for large reference books.

In either instance, support the shelves by uprights at equal intervals of not more than 3 or less than 2½ feet. Leave the wood as it is, or, better, shellac it. Do not use paint, as it is apt to rub off.

Shelving can be added, in the first method, in sections around the other sides; and in the second method, above and below the three shelves first built. No shelf should ever be so high that a person of average height cannot reach the books on it, or read their titles. When the three available sides of the room are filled with shelves, there will be 34 feet of wall shelving 7 shelves high = 238 linear feet, each foot with a "practical capacity" of 8 volumes, giving shelf-room for about 1900 volumes.

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[1] This top-board is not generally used as a shelf. The "top-shelf" spoken of elsewhere is the shelf below the top-board, — the top shelf used for holding books.

Fixed shelving is usual in small libraries, as it is easier to construct, cheaper, and less liable to get out of order. For suggestions as to movable shelving, see p. 18.

TWO OR MORE ROOMS.

As a library grows, especially if it is to be used not only for issue of books to be read at home, but also for study or light reading on the premises, it becomes desirable to separate its functions and assign them to different rooms.

In planning quarters for any library, economy of service is an essential requirement. Only one attendant can usually be employed in small libraries to catalog and prepare books for use, to receive, issue, and record books in circulation, to answer questions, and to keep an eye on strangers and restless children. Rooms should therefore be planned for service and supervision by one person from some central point.

Of two rooms, one can be used for the return, examination, issue, and record of books in circulation, and the reading of newspapers, — which entail bustle and noise; the other for consultation of reference books, and reading of periodicals, for which silence is desirable.

Three rooms will allow further division, one for the circulating department (book-room), one for reference and quiet reading, one for periodicals or for children.

When two or three rooms are used, they should if possible be opened together by broad doorways or glass partitions, so that a single attendant, seated near the junction of two rooms, or in the central room of three, may have complete oversight of the farthest corners, and be within reach of readers who want to ask questions. Three rooms are as many as one attendant can watch and serve effectively.

The shelving of the book-room may follow the plan suggested for a one-room library. If the walls are so cut up by doors and windows as to leave little clear wall-space, alcoves may be formed by building out double book-cases between or opposite the windows. Still more books can be stored in the book-room, by filling it with what are called "floor-cases," double book-cases, open on both sides, and set across the floor, with aisles between generally not less than 3 feet wide. These cases are usually 16 inches deep, and 7 or 7½ feet high; built in sections 10 or 12 feet long; sometimes with narrow ledges waist-high (with correspondingly deeper shelves underneath), but oftener straight up and down, with or without a moulding at the top. Each running foot of these double cases, 7 shelves high, will give 14 linear feet of shelving and will hold (at 8 volumes to the foot) about 110 volumes, and each section 12 feet long has a capacity of about 1300 volumes. The cases should always be set at right angles to the windows, to allow a maximum of light through the aisles. (See further suggestions on pp. 16–18.)

In a reference room, the larger volumes are often shelved in low wall-cases; base 4 inches, a shelf, say 17 inches above, and 15 inches above this a ledge, all 15 inches deep. This ledge, 3 feet from the floor, serves as a rest for books in temporary use. Such shelving will hold all encyclopædias and dictionaries. Atlases will have to be kept on tables, or on shelves specially built for them.

The furniture of these rooms — a desk and chairs or settees for the book-room, tables and chairs for the other rooms — should be simple and strong; not so solid as to be costly or cumbrous, nor so light as to tip over easily. Armchairs occupy more space than ordinary chairs. Rubber tips on chair-legs prevent noise on bare floors.

To calculate how many persons a reading-room will hold, allow 16 square feet in a magazine-room, 20 square feet in a reference room, as a minimum; — more in the latter because table room for several books at a time is often required by a reader. This estimate allows for tables 3 feet wide, with 2½ feet on the sides of the tables and 4 square feet of floor room for each reader, and with narrow passages between tables.

As to floors, carpets and rugs are objectionable, because they collect and hold dirt. Bare floors, either without treatment, or painted or shellacked, are preferable on account both of expense and of cleanliness. They are noisy, however, and to insure quiet, a covering of cork-carpet is recommended as noiseless, easily kept clean, and durable. As a cheap alternative, rubber strips 3 feet wide may be laid along aisles and passage-ways.

ADAPTING A BUILDING.

When a library outgrows three rooms, it ought to have a building all its own.

One possibility is to rent, or accept from some donor, an existing building erected for some other purpose, — usually a dwelling-house. It is generally unwise to buy such a building for a library, because its cost, together with the cost of necessary alterations, might serve to erect a building better adapted to library purposes.

When the building is rented or given, the problem arises, how to fit it up for the uses of the library. It is best to study its capabilities carefully, in the light of the requirements suggested later on under the head of "New Buildings," and to make as few changes as possible.

The rooms on the ground floor should be opened into each other or thrown together (the stairs if necessary being moved to the back of the house, or provided for by an addition to the building), to form the necessary service rooms, — book-room, reference-room, magazine room, a children's room and librarian's or cataloging-room. As the cellar will usually be dark or unfinished, and fitted only for heating plant and fuel storage, the other desirable rooms, — trustees and special students, storage, duplicates, public documents, and such other departments as the growth of the library may develop, must be assigned to the chamber floor. Generally speaking, in a library of moderate size, not supplied with an elevator, nothing but duplicate and storage rooms ought to be put in a third story.

As the weight of books, especially in book-rooms filled with floor-cases, is greater than the load provided for in building a dwelling-house, the floors (and sometimes the walls) may have to be strengthened by extra supports. This should of course be done under the advice of an experienced architect or builder.

It will often be found that the ground floor of a dwelling-house is not large enough to accommodate all the rooms which ought to be located on that floor in a library. In this case, the simplest, the least expensive, and the most effective enlargement may be made by throwing out (preferably on the north side, away from too much direct sunlight) a skeleton book-room, built mainly of wood (or iron) frame-work and glass windows, without cellar, like a conservatory. If fitted up with floor-cases such an addition, 15 × 25 feet, would contain about 9000 volumes.

NEW BUILDINGS.

Although rooms and buildings designed for other purposes may answer in the beginning, — or in small towns even permanently, — the time will come for every growing library, and in these days of public bounty and private beneficence it often comes at the outset, when it is necessary to consider the erection of a building especially adapted for library purposes.

Not necessarily costly.[1] A small library building need not cost much money. A rough, unpainted, cellar-less, one-room wooden building can be put together for, say $250, and can be fitted up and made comfortable in all weathers for as much more.

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[1] The figures suggested under this head, though based on the cost of existing buildings, must be taken only as rough estimates, subject to modification with varying conditions, and in different localities.

From $1000 to $2500 will pay for a tasteful wooden building amply sufficient for a library of not over 5000 volumes; $2500 to $5000 will erect a similar building to hold 10,000 volumes, or even more.

From $10,000 up will provide for a brick building; and from $15,000 up, for a stone building, for growing libraries of 15,000 volumes or over, with the varied functions that such a collection of books implies.

Economy. An essential canon in planning a library is economy. Unless a liberal benefactor wishes to put large outlay upon a memorial building, and is willing also to provide an ample income for its support, the larger and costlier a building is, the greater will be the expense of maintenance and repairs, and the less will be the amount, out of a fixed income, for new books and for administration. A plain building, well stocked with books and with income enough for good service and plentiful additions of current literature, is far more satisfactory to its users than a triumph of art with insufficient service and no new books. A library in an active community will never have income enough for the work progressive administration requires, and therefore especial prudence and foresight are required in making plans which will influence its expenditures.

Present Needs. Another canon in planning is not to build too much beyond the present requirements of a library, but to provide carefully, in advance, possibilities of easy and inexpensive expansion for each department. It is never easy to foresee when, in what department, and to what extent, the need for enlargement will come, or what the methods of management and the consequent requirements will be at any future time.

Site. As has already been suggested, a site should be selected as near as possible to the established business centre, which users of the library frequently visit. Two considerations, economy and freedom from noise, generally point to a side or back street near the business centre, rather than to the busiest part of the main thoroughfare.

A roomy lot is desirable, for light, air, quiet, and future growth. A corner lot is good, one bordering on three streets better, a whole square best. The building should be so located on the lot as to get the least possible dust and noise, the best light, air, and architectural effect, and the best chance for future enlargement of its service departments.

Isolation. Efficiency of administration will be best insured by devoting the whole building to library use. If it seems necessary or desirable to combine with the library a museum, a music hall, a large auditorium, or quarters for any society, the best plan will be to provide for these functions on a separate floor, or in separate wings, so as to isolate the library and not to complicate more than is absolutely necessary its problems of light and administration.

Conditions. The site having been selected, the next step is to define the conditions which must govern construction. How much money is available ? How many volumes will the library contain at the start, and how much will be the probable annual growth for, say ten years to come ? What will be the character of the library ? Is it a circulating library only ? Or will it be used for study ? Will it want to provide for any special kind of readers, children for instance, or women, or scientific students ? Will it use the "open shelf" system, and admit readers to the shelves ? will it have a book-room closed to the public, and issue books from it over a counter ? or will it combine both systems ? These, and many other similar questions, should be answered, or at least formulated, before planning is begun.

Consulting Librarian. To formulate and solve these queries, it will be wise to get advice from some librarian who has had previous experience, not only in managing a library, but also in planning a building. Such an expert adviser will be able to calculate in advance the proper size of all the required rooms, and the collocation which will assure the best service; the position and size of the desks and tables; the kind and distribution of shelving; the style and arrangement of windows best adapted to lighting the rooms; and other technical details of interior arrangement.

If the library is cramped for funds, and all engaged in developing it are giving gratuitous service, any librarian applied to will be willing also to give freely such time as he can spare, for advice and assistance. If, on the other hand, ample funds are available from public or private sources, it will in the end be economical to pay such a librarian an expert's fee, and so secure his time and thought, not only in the preliminary steps, but through every process of planning and construction, clear to the finish.

Library Commissioners, in states where they exist, can properly be called on for advice at any stage of planning or constructing a library.

Architect. The next step is to get an architect, — the best one available, — who is willing to take the conditions formulated by the building committee under advice of their library expert, to construct from them a practical interior, and plan a worthy exterior; to get estimates; and when the estimates are found to be within the limit of available funds, to supervise the work of construction. If a conflict of opinion should arise between the architect and the consulting librarian, it will obviously be wise to follow the architect's advice as to matters of taste, material, methods of construction, heating, ventilation, etc., and the librarian's advice as to interior arrangement of rooms and shelving, and other matters touching administration of the library. [As to architectural competitions, see p. 23.]

General Principles. The American Library Association has agreed upon these elementary principles of library construction: —

Every library building should be planned especially for the kind of work to be done, and the community to be served.

The interior arrangement should be planned before the exterior is considered.

Plans should provide for future growth and development.

A library should be carefully planned for economical administration.

Public rooms should be planned for complete supervision by the fewest possible attendants.

No convenience of arrangement should be sacrificed for architectural effect.

There should be no such decoration of reading-rooms or working-rooms as will attract sight-seers to disturb readers and attendants.

There should be good natural light in all parts of the building. Windows should extend to the ceiling, to light the upper portions of every room. In a book-room or stack, windows should be opposite the aisles.

No shelf should be placed so high as to be out of reach of a person of medium height standing on the floor.

Flights of stairs should be straight and not circular.

Communication by telephone or speaking tube should be arranged between the working-rooms.

Materials and Construction. For small buildings, wood, as cheaper, is permissible; but if possible even a small library should be built of durable material. Brick is next cheapest, a good building-stone the most ornamental and satisfactory.

For floors, hard wood is best, except perhaps in cities where there is much soft-coal smoke. Marble or any other stone is noisy, and cold to the feet. A covering of cork-carpet, over wood, deadens sound.

Nearly all books in the average library can be easily replaced. If a large safe-vault is provided for records and very valuable books and manuscripts, and "slow-burning" methods of construction are used throughout the building, it is now considered unnecessary to make the building absolutely fireproof, or to separate the book-rooms or stacks from the rest of the library.

Basement. A light and airy finished basement adds much to the capacity of a library. The difference in cost between a mere cellar and a basement eight or nine feet high is not great, while the basement adds at least a third to the available floor-space of a two-story building. Besides the heating plant and fuel-bins (which can be placed in the darker parts), the exterior portion of a basement story provides good rooms for janitor's use, packing and unpacking books, toilet-rooms, duplicates, public documents, and the like. In large libraries, it affords excellent accommodations for issues to branches, for newspaper reading, for small lecture-rooms, and for many other activities which modern libraries are developing.

Entrance; Halls; Stairways. No entrance or stairway should be allowed to separate rooms or departments which can be better managed when close together. Unnecessarily large entrances, halls, and stairways increase cost and cramp the working departments. In many cases, — especially where a library or a branch library must be built in the centre of a block with party-walls on both sides, — an entrance at one extremity of the lot will allow more light and better arrangement for the service rooms; and there are even cases where a subway or basement entrance, with stairs in the rear, might economize space and leave the whole front of the principal floors available for windows.

Rotundas and domes (except when they serve to light the interior of large libraries) generally interfere with convenient collocation of rooms.

Rudimentary Plan. No one plan or arrangement can be properly taken as a model for all libraries, even of the same class. There are usually many plans which will conform equally well to essential requirements. But the embryo of library development may be described as a trefoil grouping of three rooms or spaces, with the book-room at the back, a reference-room in one wing, a reading-room in the other, and a central space for applicants for books, delivery desk and catalogs, with entrance through a vestibule in front. With this theme, with subdivision of each department, proportioned to the size of the library, with provision made for enlarging each department as the library grows, the architect may plan a building which will stand all tests of library science, which can be built within the desired limit of cost, and which will also be an ornament to the town in which it is situated.

Rooms and Floors. The main floor of a library should generally be the ground floor, because it is most accessible.

The delivery-room ought always to be on this floor, near the main entrance, and so situated that the constant movement of applicants for books may not disturb readers in the other rooms. The book-room or stack should be close to the delivery-room.

Other rooms which should be on the same floor in libraries of moderate size are the reference-room, the reading (magazine) room, children's room, and rooms for librarians and catalogers.

Rooms which may be placed on an upper floor are those for trustees, special collections, such as Art, Music, Patents, Local History, etc., class-rooms, lecture-rooms, exhibition-rooms; and in general any rooms not in constant use, or used only by a small number of special students.

In arranging rooms, care should be taken to provide for increasing the accommodations in each department as its use increases. With this in view, it is well to finish both basement and attic, or to so construct them that all their space can be divided into rooms and utilized in future, as needs may arise. It is easier and cheaper to arrange room for overflow inside the building than to trust to subsequent exterior additions.

There is a general consensus of opinion that library rooms should not be higher in the walls than 10 to 12 feet in small buildings, and 14 or 15 feet in large buildings. Where stack stories are 7½ feet high, a floor-height of 15 feet in the main building brings each floor opposite an alternate story of the stack.

Light. There ought to be good light, both natural and artificial, in every part of every room, even (if possible) in a stack. To insure this requires ample window area, and careful location of the windows. In reading-rooms, if lighted from more than one side so that each wall has direct or side light, book-cases from 5 to 7 feet high are often built around the walls, and the windows are placed above, with their sills 6 or 8 feet from the floor. In stacks, high narrow windows are used, a window opposite each aisle between the book-cases.

As a general rule windows in a library ought to extend to the ceiling, with square tops, as one square-foot of high window-space is worth two of low, for lighting the remote parts of a room. To the same end, ceilings and walls should be finished in colors which reflect rather than absorb light.

For artificial light, electricity is better than gas because the fumes of the latter taint the air and injure the books. Each room in use, and the halls, ought to have constant diffused light from ceiling bulbs or clusters; with smaller lights near the shelves in each section, aisle, or alcove, and (if possible) on each table, to be turned on or off as required. A favorite table-light is a low stand with green shade, wired from below.

Storage of books. A linear foot of shelving will hold about 10 volumes of average size, closely packed. Ten volumes to the foot may therefore be called the full capacity of shelving. But in calculating shelf-room, there are several considerations which render practical capacity somewhat less. In small town libraries, indeed, so many volumes are constantly in circulation, leaving gaps on the shelves, that 10 volumes to a foot may perhaps be a safe calculation. But in larger libraries there are some sections from which books rarely get into circulation; there are others where volumes of more than average size may be expected; and everywhere, under modern systems of classification, spaces must be left at frequent intervals for additions to each subdivision.

For these reasons, it is prudent to calculate about 8 volumes to the foot as the practical capacity of shelves in the circulating department of a library; and still less, say 5 volumes to the foot, for reference books, law books, medical books, and other bulky literature.

Under this rule, every 1000 volumes of books for circulation would require about 125 feet of single shelving, equal to 18 linear feet of wall-shelving or 9 feet of double floor-cases 7 shelves high.

Shelving may be of various kinds; for instance: —

Wall-shelving, which is ordinary shelving against the wall. This is suitable for small libraries, for reference and reading-rooms, and for many departments of a large library.

Floor-cases are double book-cases about 7½ feet high[1] facing both ways and usually open through (with perhaps a longitudinal strip along the centre to keep books from being pushed through), and set across the floor. These are generally used in a book-room.

Alcoves are a combination of wall-shelving with floor-cases at right angles to it. These are suitable for libraries conducted on the "open-shelf" plan and for university or reference libraries open to readers. With a small table in each alcove, they afford quiet nooks for study, close to the books used. In deep alcoves, it is well to leave passage-ways between the wall-shelving and the floor-cases, to save steps in passing from one alcove to the next.

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[1] To the top of the moulding or finish.

A stack is a modern device for compact storage of books. It is not needed in small libraries, but has become a necessity where a great number of books must be brought together on limited floor-space. It serves library needs just as the "sky scraper" serves to pack together offices in a business centre. A stack-room is usually a bare and high room, walled with brick, and filled with iron or steel shelving, arranged in floors or "decks," about 7½ feet high; each deck containing floor-cases from 16 to 24 inches deep, with aisles not less than 2½ feet wide, at right angles to walls filled with high narrow windows. There are several patent stacks on the market, which ought to be carefully examined and compared before a choice is made. There are also many variations in construction, arrangement, and shelving which can be better understood from inspection than by description.

A stack or a book-room is generally placed at the rear of the building, with a rear wall so built as to allow future extension in that direction.

The capacity of a book-room or stack may be estimated by allowing 20 volumes to every square foot of floor-space on each stack story. Thus a book-room 30×40 feet, filled with floor-cases, will hold 30×40×20 = 24,000 volumes; and if extended upwards into a stack of three stories, its capacity will be 72,000 volumes "full capacity," or 57,600 volumes "practical capacity."[1]

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[1] The usual estimate has been 25 volumes to the square foot of floor-space, but actual count of books in the Harvard stack — an exceptionably compact one — indicates 20 volumes as the "full capacity" of a stack room. This maximum will be modified in each

The material for wall-shelving, alcoves, and floor-cases should be wood; hard wood, as more durable, being generally preferable; though soft wood, as cheaper, will answer for small libraries. The latter has one merit, — rough contact with it does not injure books so much. The front edges of wooden shelves and uprights are usually rounded. Grooves in the edges of the shelves, for the insertion of labels, are convenient.

In stacks of two stories, where it is certain that another story will never be needed, wood is good material. In stacks which have, or may need in future, more than two stories, metallic construction is required.

In small libraries and in portions of large libraries permanently devoted to sets or classes of books whose size is uniform, fixed shelving is allowable. The usual interval is 10 inches between shelves, or 11 inches from top to top. In most libraries, however, it is better to have the shelves detached, movable, as far as possible of the same length, and thus interchangeable. A simple and satisfactory method of constructing adjustable wooden shelving is to set uprights 2½ to 3 feet apart with a top-board and moulding or cornice about 7½ feet high, to hold them together, and bore holes at inch intervals near the front and rear of the whole height of both sides. Shelves made to fit easily between the uprights can then be adjusted at any intervals desired, by inserting bronze "shelf-supports" or ordinary picture screw-eyes into the holes, and turning the heads flat to support the ends of the shelves.

Corners in shelving are often boxed in, to avoid the trouble caused by books being hidden in "dead ends" of shelves.

Shelves for octavos and small volumes are usually 8 inches deep; double cases, 16 inches across. For quartos and folios, deeper shelves are required. These should

library by the width of aisles, spacing of shelves, and other varying conditions.

always be provided in proper proportion, even in small libraries.

In any form of shelving, the top shelf[1] should not be put beyond easy reach of a person of moderate height; say 6 or at the most 6½ feet from the floor.

Delivery-Room. In circulating libraries, a delivery desk and counter must be provided, with good light, close to the book-shelves, alcoves, book-room, or stack. It should be long and wide enough for the return and issue of books at the same time. In front, or near it, sufficient space should be provided for bulletin-boards, catalog cases, and seats for applicants waiting for books. In many libraries space is provided on the delivery desk, or on shelves near it, for new books placed on inspection.

Reading-Rooms. One reading-room will answer all the needs of a small library. As it grows, however, its uses become more complex. The first distinction arises between serious reading, where absolute quiet is desirable, and light reading, — that of magazines and newspapers, — which is usually accompanied by more or less moving about and rustling of leaves. This difference requires separate rooms.

A Reference-Room may be lighted from windows in the upper wall-spaces, with wall-shelving underneath; deep shelves at the bottom for the larger books; a ledge about three feet high; and above, ordinary shelving for smaller volumes. This room may be filled with tables and chairs specially selected or constructed with regard to its dimensions. If these are carefully planned and placed, one reader can be accommodated for every 20 square feet of floor-space, although 24 will leave him more room for his papers and books, and for moving about.

A Reading-Room for magazines and newspapers, if lighted as suggested above, will have wall-space for newspaper racks, and shelves for magazines, and for the "half-

[1] See note on p. 4.

hour" books especially suited to casual reading. There are several methods of managing a reading-room. In most libraries, the newspapers are hung on racks constructed for the purpose, and the magazines are distributed about on the tables. In some libraries, however, the periodicals are kept on shelves, either around the walls, open to all readers, or behind a counter, to be issued by an attendant. The arrangement of the room and its furniture will vary according to the system of management adopted for the library. Not so much floor-space is needed for readers as in a Reference-Room; 16 square feet is enough for each person, 20 square feet will be ample.

In modern public libraries, separate reading-rooms for children are considered essential.

In larger libraries, separate rooms are provided for magazines and for newspapers. The latter may be put in a basement with a separate entrance, as its use is generally entirely distinct from other uses of the library.

In larger libraries, separate reading-rooms are often provided for women, for distinctive collections of books, such as Art, Music, Patents, Education, etc., and for special students.

Work-Rooms. In any library but the very smallest, a room is required for cataloging books and preparing them for use. It should be especially well lighted, and should be close to the book-room, and near or directly over (with book-lift between) the "packing-room," where new books are received and unpacked. If a card catalog is used, the case holding it may properly be set between the delivery-room and the cataloging-room, so that the card-drawers may be conveniently used both by the catalogers and by the public. In large libraries, the catalog-room expands into a large room or suite of rooms, arranged according to the successive processes of preparing books for library use.

The Librarian's Room need not be large (except in large libraries, where a room and an ante-room are needed), but ought to be so situated as to be easily accessible from the work-rooms and the reading-rooms. These rooms are sometimes opened to the supervision of the librarian by windows or glass partitions. An adjoining safe-vault will give fireproof storage for records and especially valuable manuscripts or books.

Speaking-tube or desk-telephone communication between the work-rooms saves much time and facilitates prompt service.

When a Trustees' or Committee Room is desired, it can be placed on an upper floor. It affords opportunity, if funds are available, for more decoration than is desirable in other service-rooms. If space is lacking, it can also be used for shelving any especially valuable or sumptuous collection of books which the library owns.

High Shelving and Galleries. The practice of shelving to the ceiling, requiring ladders to reach the upper shelves, is considered obsolete. If for any reason this arrangement seems necessary, it is best to break the height of the shelving by a gallery wide enough for convenient inspection and handling of the books.

Galleries, however, are very rarely used in modern library construction, and the tiers of galleries which were common in large American libraries forty years ago are now condemned as being extremely inconvenient and wasteful of space.

Decoration and Architectural Effect. Where funds are limited, it is wise to spend very little on ornament, and to trust, for the beauty of the building, to the effect a good architect can get from proportion and color. Whenever sufficient money is available, a library is so prominent a feature in the civilization of our age that it is properly a theme for the very best architectural setting. In making a building beautiful, however, care should be taken not to let any ornamental features interfere in any degree